

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph which begins at page 24, line 38 of the application and ends at page 25, line 11 as follows:

The modulation symbol stream from each encoder / channel interleaver / puncturer / symbol mapping element 712 may be transmitted on one or more frequency subchannels and via one or more spatial subchannels of each frequency subchannel. A MIMO processor 120y receives the modulation symbol streams from elements 712. Depending on the mode to be used for each modulation symbol stream, MIMO processor 120y may demultiplex the modulation symbol stream into a number of subchannel symbol streams, at demultiplexer 714k. In the embodiment shown in FIG. 7, modulation symbol stream S_1 is transmitted on one frequency subchannel and modulation symbol stream S_K is transmitted on L frequency subchannels. The modulation stream for each frequency subchannel is processed by ~~a respective subchannel MIMO processor, 722 and 732 respectively,~~ demultiplexed by demultiplexer 724 and 734 respectively, and combined in similar manner as that described in FIG. 6, at combiner 736, to form a modulation symbol vector for each transmit antenna.

Please amend the paragraph which begins at page 23, line 19 of the application and ends at page 23, line 23 as follows:

FIG. 6 also shows an embodiment of modulator 122. The modulation symbol vectors V_1 through V_T from MIMO processor 120_x are provided to modulators ~~114~~122a through ~~114~~122t, respectively. In the embodiment shown in FIG. 6, each modulator 114 includes an IFFT 620, cycle prefix generator 622, and an upconverter 624.